

REMARKS

Applicant is in receipt of the Office Action mailed March 21, 2005. Applicant has amended claims 1, 10, 18, and 21 to more clearly and distinctly claim the invention. Claims 25-28 have been added. Claims 1-28 are pending in the application.

35 U.S.C. § 102 Rejection:

Claims 1-3, 5-6, 8-10, and 15-18 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kochavi et al (U.S. Patent 5,979,167). Claims 1, 10 and 18 have been amended to more clearly and distinctly claim the invention. With regards to the amended claims and all dependent claims thereof, Applicant respectfully traverses this rejection.

The cited reference does not teach or suggest all of the elements of the independent claims.

Amended independent claim 1 recites:

“A system for controlling at least one fan, comprising:
a first plurality of inputs configured to receive sensor data from each of a plurality of zones; and
a logic block coupled to the first plurality of inputs, wherein the logic block is configured to receive the sensor data from each of the plurality of zones, wherein the logic block is operable to calculate a single PWM value based on the sensor data from two or more of the plurality of zones;
wherein the logic block is further operable to provide a PWM signal based on the single PWM value to a fan motor configured to power the at least one fan, thereby controlling the at least one fan”

Examiner characterizes the system of Kochavi as disclosing a central air conditioning system in which a fan motor (34 in Fig. 1 of Kochavi) is controlled by a PWM signal, the value of the PWM signal being calculated based on a first plurality of inputs (150, 152 and 154 in Fig. 1 of Kochavi) received from respective rooms of a plurality of rooms. However, Kochavi does not specify that the fan motor (34) is

controlled by a PWM signal. Considering that the fan (36 in Fig. 1 of Kochavi) and its motor (34) disclosed by Kochavi are part of an air-conditioning system, not a computer system such as the one disclosed by Applicant, and taking also into consideration Fig. 3 of Kochavi, there is no explicit or implicit suggestion that Kochavi is providing a PWM signal to the fan motor (34).

In contrast, Kochavi does disclose generating PWM signals, but the PWM signals are not generated by logic block (100, Fig. 1 of Kochavi) and are not provided to fan motor (34) to thereby control the fan (36). The PWM signals of Kochavi are generated instead by a microprocessor (130, Fig. 2 of Kochavi), which is configured in a specific temperature zone (room 50 in Fig. 1 of Kochavi). Furthermore, the PWM signals contain encoded sensor information transmitted to logic block (100) via a communications line (150, Fig. 1 and lines 50-57 in column 7 of Kochavi). It is therefore clear from the specification of Kochavi that Kochavi does not disclose a logic block that is “operable to calculate a single PWM value based on the sensor data from two or more of the plurality of zones”. Instead, Kochavi discloses a localized logic block generating a PWM signal corresponding to an individual temperature zone (room). Furthermore, the logic block (100) disclosed by Kochavi does not “provide a PWM signal based on the single PWM value to a fan motor configured to power the at least one fan, thereby controlling the at least one fan”, but instead, as stated in lines 42-44 of column 15 of Kochavi, “the PWM encoded signals from the room controllers 102, 104 and 116 are decoded and stored in appropriate locations in memory.”

Amended independent claim 18 recites:

“A method for calculating value of a single PWM output used for powering a fan, the method comprising:

receiving first PWM duty cycle information corresponding to a first temperature zone;

receiving second PWM duty cycle information corresponding to a second temperature zone; and

generating the value of the single PWM output based on a combination of the first PWM duty cycle information and the second PWM duty cycle information.”

Regarding claim 18 of applicant, Examiner asserts that Kochavi describes in the description of Fig. 2 how each of controllers 102/104/106 have different PWM signals corresponding to the temperature in the different rooms. However, claim 18 of the present application recites PWM duty cycle information corresponding to a respective temperature zone, and a single PWM output generated based on a combination of first and second PWM duty cycle information, the first and second duty cycle information corresponding to respective first and second temperature zones. In contrast, Kochavi does not generate a single PWM output based on different duty cycle information received from each separate room (temperature zone), but instead generates multiple PWM output signals, each PWM output corresponding to a single room (temperature zone). This is explicitly stated by Kochavi in lines 63-67 of column 7, where it is indicated that a separate PWM encoded signal is sent to control system (100) for rooms (52) and (54). In addition, as previously noted, in the system of Kochavi the PWM signals are stored in appropriate locations in memory, and are not used for powering a fan, unlike in Applicant's system.

For at least these reasons, Applicant submits that the combinations of features recited in independent claims 1, 10, and 18 are not anticipated or rendered obvious by Kochavi et al. Accordingly, Applicant respectfully requests removal of the 35 U.S.C. § 102(b) rejection. Applicant further submits that claims 2-3, 5, 6 and 8-9 are allowable based on their dependence on allowable claim 1, and claims 15-17 are allowable based on their dependence on allowable claim 10.

Claims 4, 7, and 11-14 were objected to as being dependent upon a rejected base claim. Applicant submits that these claims are allowable based on their dependence on claims 1 and 10, which were shown to be allowable for at least the reasons given above. Applicant further submits that new claims 25-28 are also allowable for at least the same reasons as given above.

Claims 19-24 were allowed. Claim 21 was amended to more clearly and distinctly claim the invention.



CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5707-00900/JCH.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

Respectfully submitted,

Jeffrey C. Hood
Reg. No. 35,198
ATTORNEY FOR APPLICANT(S)

Meyertons, Hood, Kivlin, Kowert & Goetzel PC
P.O. Box 398
Austin, TX 78767-0398
Phone: (512) 853-8800
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